0550
0315

#2

OIPE

RAW SEQUENCE LISTING   DATE: 03/19/2002
PATENT APPLICATION: US/09/824,647   TIME: 14:49:08

Input Set : N:\Crf3\RULE60\09824647.raw
Output Set: N:\CRF3\03192002\I824647.raw

```
 1 <110> APPLICANT: Serrero, Ginette
 2 <120> TITLE OF INVENTION: 88 KDA TUMORIGENIC GROWTH FACTOR AND ANTAGONISTS
 3 <130> FILE REFERENCE: Z9996.488/P001-A
 4 <140> CURRENT APPLICATION NUMBER: 09/824,647
 5 <141> CURRENT FILING DATE: 2001-04-04
 7 <150> PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/991,862
 8 <151> PRIOR FILING DATE: EARLIER FILING DATE: 1998-08-17     W-->
11 <150> PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 08/863,862
12 <151> PRIOR FILING DATE: EARLIER FILING DATE: 1997-05-23     W-->
13 <160> NUMBER OF SEQ ID NOS: 17
14 <170> SOFTWARE: PatentIn Ver. 2.0
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 2137
18 <212> TYPE: DNA
19 <213> ORGANISM: Mouse epithelin/granulin
20 <220> FEATURE:
21 <221> NAME/KEY: CDS
22 <222> LOCATION: (23)..(1789)
23 <223> OTHER INFORMATION: The sequence is identical to that of the published
24       mouse granulin except for one nucleotide (T
25       instead of G) at position 1071 of GP88 cDNA
26       (position 1056 of mouse granulin).
27 <400> SEQUENCE: 1
28       cggaccccga cgcagacaga cc atg tgg gtc ctg atg agc tgg ctg gcc ttc  52
29                                 Met Trp Val Leu Met Ser Trp Leu Ala Phe
30                                  1               5                  10
31       gcg gca ggg ctg gta gcc gga aca cag tgt cca gat ggg cag ttc tgc  100
32       Ala Ala Gly Leu Val Ala Gly Thr Gln Cys Pro Asp Gly Gln Phe Cys
33                       15              20                  25
34       cct gtt gcc tgc tgc ctt gac cag gga gga gcc aac tac agc tgc tgt  148
35       Pro Val Ala Cys Cys Leu Asp Gln Gly Gly Ala Asn Tyr Ser Cys Cys
36                   30              35                  40
37       aac cct ctt ctg gac aca tgg cct aga ata acg agc cat cat cta gat  196
38       Asn Pro Leu Leu Asp Thr Trp Pro Arg Ile Thr Ser His His Leu Asp
39               45                  50                  55
40       ggc tcc tgc cag acc cat ggc cac tgt cct gct ggc tat tct tgt ctt  244
41       Gly Ser Cys Gln Thr His Gly His Cys Pro Ala Gly Tyr Ser Cys Leu
42               60                  65                  70
43       ctc act gtg tct ggg act tcc agc tgc tgc ccg ttc tct aag ggt gtg  292
44       Leu Thr Val Ser Gly Thr Ser Ser Cys Cys Pro Phe Ser Lys Gly Val
45          75                  80                  85                  90
46       tct tgt ggt gat ggc tac cac tgc tgc ccc cag ggc ttc cac tgt agt  340
47       Ser Cys Gly Asp Gly Tyr His Cys Cys Pro Gln Gly Phe His Cys Ser
```

ENTERED

Input Set : N:\Crf3\RULE60\09824647.raw
Output Set: N:\CRF3\03192002\I824647.raw

```
48                        95                 100                 105
49    gca gat ggg aaa tcc tgc ttc cag atg tca gat aac ccc ttg ggt gct    388
50    Ala Asp Gly Lys Ser Cys Phe Gln Met Ser Asp Asn Pro Leu Gly Ala
51                   110                 115                 120
52    gtc cag tgt cct ggg agc cag ttt gaa tgt cct gac tct gcc acc tgc    436
53    Val Gln Cys Pro Gly Ser Gln Phe Glu Cys Pro Asp Ser Ala Thr Cys
54                   125                 130                 135
55    tgc att atg gtt gat ggt tcg tgg gga tgt tgt ccc atg ccc cag gcc    484
56    Cys Ile Met Val Asp Gly Ser Trp Gly Cys Cys Pro Met Pro Gln Ala
57                   140                 145                 150
58    tct tgc tgt gaa gac aga gtg cat tgc tgt ccc cat ggg gcc tcc tgt    532
59    Ser Cys Cys Glu Asp Arg Val His Cys Cys Pro His Gly Ala Ser Cys
60    155                 160                 165                 170
61    gac ctg gtt cac aca cga tgc gtt tca ccc acg ggc acc cac acc cta    580
62    Asp Leu Val His Thr Arg Cys Val Ser Pro Thr Gly Thr His Thr Leu
63                   175                 180                 185
64    cta aag aag ttc cct gca caa aag acc aac agc gca gtg tct ttg cct    628
65    Leu Lys Lys Phe Pro Ala Gln Lys Thr Asn Ser Ala Val Ser Leu Pro
66                   190                 195                 200
67    ttt tct gtc gtg tgc cct gat gct aag acc cag tgt ccc gat gat tct    676
68    Phe Ser Val Val Cys Pro Asp Ala Lys Thr Gln Cys Pro Asp Asp Ser
69                   205                 210                 215
70    acc tgc tgt gag cta ccc act ggg aag tat ggc tgc tgt cca atg ccc    724
71    Thr Cys Cys Glu Leu Pro Thr Gly Lys Tyr Gly Cys Cys Pro Met Pro
72    220                 225                 230
73    aat gcc atc tgc tgt tcc gac cac ctg cac tgc tgc ccc cag gac act    772
74    Asn Ala Ile Cys Cys Ser Asp His Leu His Cys Cys Pro Gln Asp Thr
75    235                 240                 245                 250
76    gta tgt gac ctg atc cag agt aag tgc cta tcc aag aac tac acc acg    820
77    Val Cys Asp Leu Ile Gln Ser Lys Cys Leu Ser Lys Asn Tyr Thr Thr
78                   255                 260                 265
79    gat ctc ctg acc aag ctg cct gga tac cca gtg aag gag gtg aag tgc    868
80    Asp Leu Leu Thr Lys Leu Pro Gly Tyr Pro Val Lys Glu Val Lys Cys
81                   270                 275                 280
82    gac atg gag gtg agc tgc cct gaa gga tat acc tgc tgc cgc ctc aac    916
83    Asp Met Glu Val Ser Cys Pro Glu Gly Tyr Thr Cys Cys Arg Leu Asn
84                   285                 290                 295
85    act ggg gcc tgg ggc tgc tgt cca ttt gcc aag gcc gtg tgt tgt gac    964
86    Thr Gly Ala Trp Gly Cys Cys Pro Phe Ala Lys Ala Val Cys Cys Asp
87                   300                 305                 310
88    gat cac att cat tgc tgc ccg gca ggg ttt cag tgt cac aca gag aaa    1012
89    Asp His Ile His Cys Cys Pro Ala Gly Phe Gln Cys His Thr Glu Lys
90    315                 320                 325                 330
91    gga acc tgc gaa atg ggt atc ctc caa gta ggg tgg atg aag aag gtc    1060
92    Gly Thr Cys Glu Met Gly Ile Leu Gln Val Gly Trp Met Lys Lys Val
93                   335                 340                 345
94    ata gcc ccc ctc cgc ctg cca gac cca cag atc ttg aag agt gat aca    1108
95    Ile Ala Pro Leu Arg Leu Pro Asp Pro Gln Ile Leu Lys Ser Asp Thr
96                   350                 355                 360
```

RAW SEQUENCE LISTING   DATE: 03/19/2002
PATENT APPLICATION: US/09/824,647   TIME: 14:49:08

Input Set : N:\Crf3\RULE60\09824647.raw
Output Set: N:\CRF3\03192002\I824647.raw

```
97      cct tgt gat gac ttc act agg tgt cct aca aac aat acc tgc tgc aaa   1156
98      Pro Cys Asp Asp Phe Thr Arg Cys Pro Thr Asn Asn Thr Cys Cys Lys
99              365                 370                 375
100     ctc aat tct ggg gac tgg ggc tgc tgt ccc atc cca gag gct gtc tgc   1204
101     Leu Asn Ser Gly Asp Trp Gly Cys Cys Pro Ile Pro Glu Ala Val Cys
102             380                 385                 390
103     tgc tca gac aac cag cat tgc tgc cct cag ggc ttc aca tgt ctg gct   1252
104     Cys Ser Asp Asn Gln His Cys Cys Pro Gln Gly Phe Thr Cys Leu Ala
105     395                 400                 405                 410
106     cag ggg tac tgt cag aag gga gac aca atg gtg gct ggc ctg gag aag   1300
107     Gln Gly Tyr Cys Gln Lys Gly Asp Thr Met Val Ala Gly Leu Glu Lys
108             415                 420                 425
109     ata cct gcc cgc cag aca acc ccg ctc caa att gga gat atc ggt tgt   1348
110     Ile Pro Ala Arg Gln Thr Thr Pro Leu Gln Ile Gly Asp Ile Gly Cys
111             430                 435                 440
112     gac cag cat acc agc tgc cca gta ggg caa acc tgc tgc cca agc ctc   1396
113     Asp Gln His Thr Ser Cys Pro Val Gly Gln Thr Cys Cys Pro Ser Leu
114             445                 450                 455
115     aag gga agt tgg gcc tgc tgc cag ctg ccc cat gct gtg tgc tgt gag   1444
116     Lys Gly Ser Trp Ala Cys Cys Gln Leu Pro His Ala Val Cys Cys Glu
117             460                 465                 470
118     gac cgg cag cac tgt tgc ccg gcc ggg tac acc tgc aac gtg aag gcg   1492
119     Asp Arg Gln His Cys Cys Pro Ala Gly Tyr Thr Cys Asn Val Lys Ala
120     475                 480                 485                 490
121     agg acc tgt gag aag gat gtc gat ttt atc cag cct ccc gtg ctc ctg   1540
122     Arg Thr Cys Glu Lys Asp Val Asp Phe Ile Gln Pro Pro Val Leu Leu
123             495                 500                 505
124     acc ctc ggc cct aag gtt ggg aat gtg gag tgt gga gaa ggg cat ttc   1588
125     Thr Leu Gly Pro Lys Val Gly Asn Val Glu Cys Gly Glu Gly His Phe
126             510                 515                 520
127     tgc cat gat aac cag acc tgt tgt aaa gac agt gca gga gtc tgg gcc   1636
128     Cys His Asp Asn Gln Thr Cys Cys Lys Asp Ser Ala Gly Val Trp Ala
129             525                 530                 535
130     tgc tgt ccc tac cta aag ggt gtc tgc tgt aga gat gga cgt cac tgt   1684
131     Cys Cys Pro Tyr Leu Lys Gly Val Cys Cys Arg Asp Gly Arg His Cys
132             540                 545                 550
133     tgc ccc ggt ggc ttc cac tgt tca gcc agg gga acc aag tgt ttg cga   1732
134     Cys Pro Gly Gly Phe His Cys Ser Ala Arg Gly Thr Lys Cys Leu Arg
135     555                 560                 565                 570
136     aag aag att cct cgc tgg gac atg ttt ttg agg gat ccg gtc cca aga   1780
137     Lys Lys Ile Pro Arg Trp Asp Met Phe Leu Arg Asp Pro Val Pro Arg
138             575                 580                 585
139     ccg cta ctg taaggaaggg ctacagactt aaggaactcc acagtcctgg           1829
140     Pro Leu Leu
142     gaaccctgtt ccgagggtac ccactactca ggcctcccta gcgcctcctc ccctaacgtc 1889
143     tccccggcct actcatcctg agtcacccta tcaccatggg aggtggagcc tcaaactaaa 1949
144     accttctttt atggaaagaa ggctctggcc aaaagccccg tatcaaactg ccatttcttc 2009
145     cggtttctgt ggaccttgtg gccaggtgct cttcccgagc cacaggtgtt ctgtgagctt 2069
146     gcttgtgtgt gtgtgcgcgt gtgcgtgtgt tgctccaata aagtttgtac gctttctgaa 2129
```

●

```
147       aaaaaaaa                                                    2137
149 <210> SEQ ID NO: 2
150 <211> LENGTH: 589
151 <212> TYPE: PRT
152 <213> ORGANISM: Mouse epithelin/granulin
153 <400> SEQUENCE: 2
154       Met Trp Val Leu Met Ser Trp Leu Ala Phe Ala Ala Gly Leu Val Ala
155        1               5                  10                  15
156       Gly Thr Gln Cys Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu
157                    20                  25                  30
158       Asp Gln Gly Gly Ala Asn Tyr Ser Cys Cys Asn Pro Leu Leu Asp Thr
159               35                  40                  45
160       Trp Pro Arg Ile Thr Ser His His Leu Asp Gly Ser Cys Gln Thr His
161           50                  55               , 60
162       Gly His Cys Pro Ala Gly Tyr Ser Cys Leu Leu Thr Val Ser Gly Thr
163          65                  70                  75                  80
164       Ser Ser Cys Cys Pro Phe Ser Lys Gly Val Ser Cys Gly Asp Gly Tyr
165                    85                · 90                  95
166       His Cys Cys Pro Gln Gly Phe His Cys Ser Ala Asp Gly Lys Ser Cys
167                   100                 105                 110
168       Phe Gln Met Ser Asp Asn Pro Leu Gly Ala Val Gln Cys Pro Gly Ser
169               115                 120                 125
170       Gln Phe Glu Cys Pro Asp Ser Ala Thr Cys Cys Ile Met Val Asp Gly
171           130                 135                 140
172       Ser Trp Gly Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg
173       145                 150                 155                 160
174       Val His Cys Cys Pro His Gly Ala Ser Cys Asp Leu Val His Thr Arg
175                   165                 170                 175
176       Cys Val Ser Pro Thr Gly Thr His Thr Leu Leu Lys Lys Phe Pro Ala
177                   180                 185                 190
178       Gln Lys Thr Asn Ser Ala Val Ser Leu Pro Phe Ser Val Val Cys Pro
179               195                 200                 205
180       Asp Ala Lys Thr Gln Cys Pro Asp Asp Ser Thr Cys Cys Glu Leu Pro
181           210                 215                 220
182       Thr Gly Lys Tyr Gly Cys Cys Pro Met Pro Asn Ala Ile Cys Cys Ser
183       225                 230                 235                 240
184       Asp His Leu His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln
185                   245                 250                 255
186       Ser Lys Cys Leu Ser Lys Asn Tyr Thr Thr Asp Leu Leu Thr Lys Leu
187                   260                 265                 270
188       Pro Gly Tyr Pro Val Lys Glu Val Lys Cys Asp Met Glu Val Ser Cys
189                   275                 280               · 285
190       Pro Glu Gly Tyr Thr Cys Cys Arg Leu Asn Thr Gly Ala Trp Gly Cys
191                   290                 295                 300
192       Cys Pro Phe Ala Lys Ala Val Cys Cys Asp Asp His Ile His Cys Cys
193       305                 310                 315                 320
194       Pro Ala Gly Phe Gln Cys His Thr Glu Lys Gly Thr Cys Glu Met Gly
195                   325                 330                 335
196       Ile Leu Gln Val Gly Trp Met Lys Lys Val Ile Ala Pro Leu Arg Leu
```

RAW SEQUENCE LISTING
PATENT·APPLICATION: US/09/824,647

DATE: 03/19/2002
TIME: 14:49:08

Input Set : N:\Crf3\RULE60\09824647.raw
Output Set: N:\CRF3\03192002\I824647.raw

```
197                    340                 345                 350
198        Pro Asp Pro Gln Ile Leu Lys Ser Asp Thr Pro Cys Asp Asp Phe Thr
199                355                 360                 365
200        Arg Cys Pro Thr Asn Asn Thr Cys Cys Lys Leu Asn Ser Gly Asp Trp
201            370                 375                 380
202        Gly Cys Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp Asn Gln His
203        385                 390                 395                 400
204        Cys Cys Pro Gln Gly Phe Thr Cys Leu Ala Gln Gly Tyr Cys Gln Lys
205                405                 410                 415
206        Gly Asp Thr Met Val Ala Gly Leu Glu Lys Ile Pro Ala Arg Gln Thr
207                420                 425                 430
208        Thr Pro Leu Gln Ile Gly Asp Ile Gly Cys Asp Gln His Thr Ser Cys
209                435                 440                 445
210        Pro Val Gly Gln Thr Cys Cys Pro Ser Leu Lys Gly Ser Trp Ala Cys
211            450                 455                 460
212        Cys Gln Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys
213        ·465                 470                 475                 480
214        Pro Ala Gly Tyr Thr Cys Asn Val Lys Ala Arg Thr Cys Glu Lys Asp
215                485                 490                 495
216        Val Asp Phe Ile Gln Pro Pro Val Leu Leu Thr Leu Gly Pro Lys Val
217                500                 505                 510
218        Gly Asn Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr
219                515                 520                 525
220        Cys Cys Lys Asp Ser Ala Gly Val Trp Ala Cys Cys Pro Tyr Leu Lys
221            530                 535                 540
222        Gly Val Cys Cys Arg Asp Gly Arg His Cys Cys Pro Gly Gly Phe His
223        545                 550                 555                 560
224        Cys Ser Ala Arg Gly Thr Lys Cys Leu Arg Lys Lys Ile Pro Arg Trp
225                565                 570                 575
226        Asp Met Phe Leu Arg Asp Pro Val Pro Arg Pro Leu Leu
227                580                 585
```

229 <210> SEQ ID NO: 3
230 <211> LENGTH: 19
231 <212> TYPE: PRT
232 <213> ORGANISM: mouse granulin
233 <220> FEATURE:
234 <221> NAME/KEY: PEPTIDE
235 <222> LOCATION: (1)..(19)
236 <223> OTHER INFORMATION: Internal peptide of mouse GP88 used to raise the
237   antisera against the GP88 used in the
238   immunoaffinity step.
239 <400> SEQUENCE: 3

```
240        Lys Lys Val Ile Ala Pro Arg Arg Leu Pro Asp Pro Gln Ile Leu Lys
241         1               5                  10                  15
242        Ser Asp Thr
```

244 <210> SEQ ID NO: 4
245 <211> LENGTH: 12
246 <212> TYPE: PRT
247 <213> ORGANISM: mouse granulin

VERIFICATION SUMMARY   DATE: 03/19/2002
PATENT APPLICATION: **US/09/824,647**   TIME: 14:49:09

Input Set : **N:\Crf3\RULE60\09824647.raw**
Output Set: **N:\CRF3\03192002\I824647.raw**

```
L:8 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:12 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:304 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:316 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:9
L:328 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:10
L:339 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:11
L:350 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12
L:361 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:13
L:372 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ \ID#:14
L:383 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
```